GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA

UNSTARRED QUESTION NO:489
ANSWERED ON:19.07.2017
Indian Nuclear Power Programme
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Will the Minister of ATOMIC ENERGY be pleased to state:

(a)whether the Government has made any appreciable developments and achievements in implementing the third stage of Indian nuclear power programme;

(b)if so, the details and the status thereof;

(c)the nuclear power projects initiated during the last five years and to be initiated in near future with the collaboration of USA and Russia;

(d)the amount earmarked for this programme and the estimated power production to be generated by 2020; and

(e)whether nuclear energy production would slowly replace the energy from fossil fuels particularly coal and if so, the details thereof?

Answer

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (Dr. JITENDRA SINGH):

(a)&(b) Substantial work has been carried out in the areas of research on technologies for utilisation of Thorium in nuclear fuel cycle, and on the development of an Advanced Heavy Water Reactor (AHWR), for use of Thorium based fuel on a large scale.

Bhabha Atomic Research Centre (BARC), a constituent Unit of the Department of Atomic Energy has developed a design for Advanced Heavy Water Reactor (AHWR), a Technology Demonstrator Reactor of 300 MW, for utilisation of Thorium. The reactor is designed and developed to achieve large-scale use of Thorium for the generation of commercial nuclear power which is a part of India"s three stage nuclear power programme. Thus, AHWR is not only a stepping stone to the third stage but also expected to provide a platform for developing and testing technologies required for the third stage. AHWR is designed with the motto of highest level of safety and security. The Government, in December, 2016, has accorded in-principle approval for the Tarapur Maharashtra Site (TMS) for locating the 300 MW Advanced Heavy Water Reactor.

(c)During the last five years, KKNPP 3&4 (2X1000 MW) and KKNPP 5&6 (2 x 1000 MW) projects at Kudankulam, Tamil Nadu being set up in technical cooperation with Russian Federation have been accorded financial sanction and administrative approval by the Government. The construction of KKNPP 3&4 has commenced and the General Framework Agreement for KKNPP 5&6 has been concluded. In respect of setting up nuclear power projects in cooperation with the USA, discussions with M/s Westinghouse Electric Company (WEC) and GE Hitachi Nuclear Energy (GEH) have commenced to arrive at viable project proposals.

(d)The approved completion cost of the KKNPP 3&4 (2X1000 MW) project is Rs.39849 crore and that of KKNPP 5&6 (2 x 1000 MW) is Rs.49621 crore. The project proposals of the other projects to be set up with Russian & US technical cooperation are at various stages of discussion. The allocations will be made project-wise on approval of the projects. These projects are expected to start power generation beyond 2020.

(e)The role of nuclear power in the near term is to supplement generation from fossil fuel sources and in the long term, provide the country energy security. All energy sources including coal and nuclear will be deployed optimally to meet the country's growing electricity demand.

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